

## THE STUDY AND APPLICATION OF ART.\*

Now an infinity of forms has been employed in Gothic art. Many of these are but works of imagination, no way belonging to any one material more than any other. All such are common property. But those which do actually refer to the nature of, and mode of construction with, particular materials, are not to be quietly fathered on others that would none of their parentage. For instance, you may carve a lily in stone, or wood, or iron: the lily here is a form of common property; so also are the forms of foliage: but it would be absurd to try and erect stone rafters, or iron columns as large as a column of glass need be to sustain the same weight. Attend, also, to the proportions in which different materials must be used to bear the same weight. Of course all here know what is called the crushing weight as to various substances; and that the bulk of material used for sustaining purposes must always be in proportion to its power of resistance. This crushing weight varies even for divers sorts of brick, of which one will take twice the burden of another. Look, too, at the state of the case with respect to iron, of which the wrought is fibrous, and the cast crystalline in nature; and it will soon be perceived how much less bulk is required in the one than in the other: for where the cast is weighty, cumbersome, and always more or less unsafe, the wrought is light and elegant, and strong as the magic net wherein the wizard of the Castle of Indolence was pent. Whence may he never escape!

The best mode of study is to try and design a building in one material only, selecting which you please, stone, wood, iron, or any other: persuade yourselves for the time that this is the only substance in existence; and you will soon find yourselves engaged in as pretty a struggle and as pleasant a work for a man of judgment and imagination as you can possibly desire. You will then learn exactly what that is capable of which you have chosen; you will use every ingenuity to succeed in your design; you will meet with difficulties worthy of conquest; and must naturally discover many things that may be done which nobody thought of, because nobody, or perhaps few, have ever tried the experiment. Suppose you had chosen iron and metal only, you should be allowed to cast it in any form but such as expressly belongs to another, to have it wrought into imitation of any natural object, but especially into those in which it cannot be cast; to decorate with any colour but what notoriously appertains to some other well-known substance; then for ornament you might use the arts of science, and electrotype your beaten vine with gold or silver, where you desire the effect, and have no intention of asserting that it is solid gold or solid silver throughout: you might resort to the beautiful contrivances of science, also, to light this edifice in new and elegant ways; and you might then invite inspection to your new work. In employing but one class of materials it would soon be discovered where they failed in contrivance or effect, and there could be introduced others more suitable. But by this process as at first proposed, you would ascertain the exact capabilities of each substance, and could then combine them together to tell as poetic and beautiful an architectural tale as any idealist might desire. A correct imagination also will lead to the right choice of materials for different subjects. We cannot always go from grave to gay, from lively to severe, in the same thing: we should find it hard to be gay in granite, or grave in plaster. Nor would any one erect a marble booth at a fair, or set up an image of unseasoned wood in memory of the Duke of Wellington. According to the nature of the work and its intent, so then will be your choice; so will the place in which you use different substances; just as we pack our tiles in a foundation, or lay blocks of marble on the wooden framework of a roof; because we cannot, it is said; very clear; we perceive all these properties where they are forced upon us; but there we stop. It is there that we must not stop. Why not? What does it matter?

\* See page 684, ante.

What does it matter! As much as it matters to be dull and stupid from their indifference; as much as it matters to subjugate the masses to a grovelling spirit of trade and hafter; as much as it matters to pervert the taste, and vitiate the imagination of our fellows through their eyes; as much as it would matter to be condemned to listen to a perpetual tuning-up and no music; as much as it would matter to be as cold, flat, formal, and unlovely in our minds as a shameful apathy can make us! Well, we are getting transcendental; we will come down from our height; we will have no fine aspirations; we will be very, very practical; we will brood over our disappointments, and give up in despair: it is all no use; let us have no fine art, but money; let the world roll on in its old dusty grooves,—who cares? And we, poor wretches, why are we always trying to rise? What has an artist, so named, to do with wings, and soaring in search of beauty and grace? No; let us sit down in the dust, and build in straw, and play with ugliness like idiots. This, gentlemen, is a tone, I trust, but of few: it is not as we think, it is not as we feel, it is not as we will act. It must be remembered, that all these things insisted on with respect to design in various substances, are under the law, not of morality, but of taste. However much men may be retrograde and slavish in your art, it does not arise, as some say, from an extraordinary desire of architectural lying, architectural fraud, and architectural goodness-knows-what-besides; it arises more from want of knowing how to act. I am not to be told that any one making a bad design has a deliberate intention of doing damage. The evil is done; but I absolve the doer in this case from the intention. It is well, therefore, to be on our guard from so extending the coils of wickedness as to look upon grainers of mutation-wood as downright sinners: we believe that their work is of bad taste; but, at the same time, we do not look upon them as men to be covered by the arm of law or avoided as lepers. There is an unlucky cant in this extreme view which were well avoided, as it tends to render morality ridiculous by making it embrace matters of taste and hedge them round with penal regulations. Let us first convince men that their works tend to an injurious effect, and not violently assail them for innocently following pursuits for which we have found no better substitute. But for those who do know, and act not according to their knowledge, there may be some truth in saying that they are in the position of men who fail in the execution of their duty. Men who ask "what does it matter?" or answer "any thing will do." are of this class, and deserve both the censure of the critic, and of all who have any soul about them.

I have now passed through the matters proposed at the beginning of this paper. We have followed the development, guidance, and application of those faculties of the mind chiefly conceived in the following of art; and we have pursued the matter in those branches which at a former time were yet left for examination. But there yet remains one question pertinent to the subject you ask. With all that is said about materials, where is the material to carry out all this reform, or even to enable us to begin it? I answer, that it is here, in this place, in the "Architectural Association." You are associated for the express purpose of endeavouring to achieve these desirable changes. Why associated? To do that in a body which is beyond the scope of any individual; to gain all the great support to be derived from mutual assistance, mutual interchange of thought, mutual esteem and encouragement.

Here the deficiencies of one in any particular branch are made up for, compensated by the skill of another in the same; one has original talent in design, another thoroughly understands the distinctive characteristics of styles, another is a master of colour as to be employed in architecture, another is accurate and faithful in the delineation of known examples. Every man has his field of operation; there need be no clashing nor rivalry; but each may, if he will, communicate his light to his neighbour, and all together, in one har-

monious unity, move on to the accomplishment of great things in the advancement and development of your art. You have on your side all the advantage of the very spring and flower of life, when the heart is warm, the imagination teeming, the will ready, the whole man ardent, earnest, burning to push on. If here, then, men attend in force, if for this place they reserve the choicest efforts of their leisure, if every one is willing to communicate his own information, and ready to acquire, in return, what may we not hope for, to what may we not aspire? The very force of this society lies in the liberal principles, so creditable to its original founders, on which it is based; this is not the assembly of men who have sunk upon the silken cushions of that competency and self-sufficiency which precludes all further effort; it is one animated from all causes with the desire to advance and to be great; and imbued by the very nature of its position with that warm and fertilizing spirit, that fervour of mind, which is meeting in all classes the determination to improve, to expand, and to rise.

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## THE UNDERGROUND ELECTRIC TELEGRAPH.

On Monday the operation of laying down the wires of the underground electric telegraph between Dover and the metropolis was completed, and a junction having been effected with the submarine cable, a direct communication was at once established between the offices of the "European and Submarine Printing Telegraph Company" in Cornhill and Paris. The new line of telegraph follows the route of the old Dover coach road, passing through the several towns of Dartford, Gravesend, Rochester, Sittingbourne, and Canterbury, and has been laid down by Messrs. Frenel and Hamel of Bedford-row. The works have been rapidly done in defiance both of unfavourable weather and of direct opposition, and it is a matter of congratulation to all whose business or pleasure renders frequent communication with the continent requisite or desirable, that there need not now be any delay in the transmission of messages between the two countries. Whether there will be or not, or if the facilities will be developed as they should be, we have yet to see. Before the completion of this line all continental messages from London were conveyed by means of the South Eastern Railway Company's telegraph to Dover, where a break occurred, owing to the absence of direct telegraphic communication between the station and the office of the submarine company. It was partly to avoid this interruption, but mainly to save a very heavy rental paid to the South-Eastern Company for the privilege of using their telegraph, that the construction of the underground telegraph was resorted upon. The pecuniary loss involved led the South-Eastern directors to resist, even by force, in defiance of the powers of an Act of Parliament, the transit of the telegraph under their railway. This happened at Canterbury, and was carried so far that Mr. Frenel, the contractor, was actually given into custody by the railway officials and taken before the mayor and magistrates, by whom he was, of course, at once discharged.

The line of telegraph of which we are speaking consists of six pure copper wires encased in gutta percha. These wires are manufactured in half-mile lengths, which (after being joined together) are protected along the high roads by wooden troughs, and in towns by iron tubes, which are respectively sunk to an average depth of two feet beneath the surface of the ground. The troughs are of simple construction, being formed by sawing a deal into three, thus obtaining a square of about 2½ inches, with a groove cut out at the planing mills, to contain the wires. The ends as well as the tops (which latter are about three-quarters of an inch in thickness), are cut to a bevel, and so the covering is made complete and secure. In the method of joining the iron tubes, the company have availed themselves of a patent taken out by Mr. Brett, who is also (as is well known to our readers), the patentee of the process of telegraphic